

PROJECT TITLE : PRODUCT RESEARCH
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TRIACETIN ANALYSIS BY (GC)²

Work begun last month (1) has been continued.

THE APPLICATION OF FUSED SILICA CAPILLARY (FSC) COLUMNS
TO GAS-PHASE ANALYSIS

The analysis time of gas-phase cigarette smoke analysis with a standard glass capillary is ca. 1 hour. By using an FSC column (50 m /0.2 mm treated with the stationary phase SP 2100) in combination with a Model 5880 HP-GC equipped with a cryogenic system, the analysis time was drastically reduced to ca. 28 min (Fig. 1). In addition several peaks of unknown smoke constituents, not found when glass capillaries are applied, were detected. This indicates that several compounds are systematically (partially or completely) absorbed in glass columns.

By shortening the analysis time, we are approaching (GC)² routine gas-phase analysis.

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REFERENCE

- (1) Y. Genoud, PME Research Laboratory, Monthly Progress Report, September 1980.

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Figure 1

Gas-Phase of Cigarette Smoke

